



MILWAUKEE

OFFICE OF ENVIRONMENTAL SUSTAINABILITY

Newsletter

Happy New Year from the City of Milwaukee's Office of Environmental Sustainability. This semi-annual newsletter helps to update residents, businesses, and City employees on current and future Office of Environmental Sustainability (OES) programs, projects, and initiatives. OES especially thanks Mayor Tom Barrett for his nationally recognized leadership on environmental sustainability issues and thanks to all those Milwaukeeans who work with OES to make the city a more sustainable place to call home. If someone you know would like to receive the OES Newsletter by e-mail, request a copy at sustainability@milwaukee.gov.

New City Energy Efficiency Program for Milwaukee's Businesses

Milwaukee has many old buildings that define the character of the City. From downtown high-rises, to the Fifth Ward low-rises, to hotels, to neighborhood churches and all buildings in between, Milwaukee offers tremendous diversity in our built environment.

While the exterior character of many of these buildings shines, their internal systems are in need of renewal.

Twenty-first century lighting, heating and cooling systems, water reclamation systems, and other technologies offer tremendous potential to cut a building's utility bill, improve its indoor air quality and occupant comfort, reduce its environmental footprint, and improve its value and marketability.

Many prospective tenants view "green" buildings as more desirable when shopping in a competitive real estate marketplace. Are your buildings systems due for an energy efficient replacement?

If so, the Milwaukee Energy Efficiency program, Me², can help. In fall of 2011, the Office of Environmental Sustainability began offering Commercial Me² to commercial property owners in the City of Milwaukee.

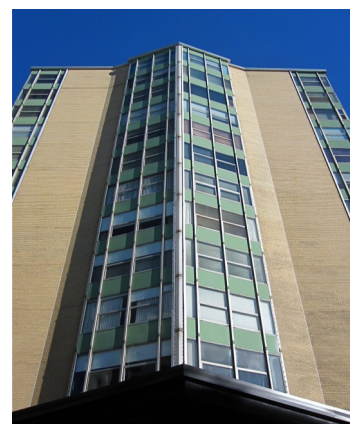
This innovative program can help you finance energy efficiency projects to save over 15% on utility bills. Me² offers four different financial products to meet your needs with lower interest rates and no-money down financing.

One option is the Me² Clean Energy Financing tool which offers the potential for a building owner to pass energy efficiency project costs on to tenants. The property owner gets a better building, and tenants improve their annual cash flow through lower bills.

The City of Milwaukee is the only city in Wisconsin to offer this innovative approach to energy efficiency!

(Continued on Page 3)

Me² CASE STUDY



The Newport on Prospect Avenue is Milwaukee's first property to take advantage of Commercial Me². The \$692,000 project developed by Johnson Controls will renew the building's boiler, chiller and control systems. It will slash the building's energy bill by at least \$48,000 each year. With Me², building owners are able to distribute costs over time so upgrades could be made without raising the tenants' association fees.

About Us: The Office of Environmental Sustainability (OES) was created by Mayor Tom Barrett to position Milwaukee as a leader in environmental sustainability and performance in the 21st Century. OES promotes both economically viable and environmentally sound practices, projects, and initiatives. The Office works with City departments, businesses and residents to reduce material and natural resource consumption while promoting strategies that address the community's critical sustainability needs. OES is entirely grant funded. Since 2006, OES has successfully attracted more than \$20 million in grant funding to Milwaukee to help create a more sustainable community. OES is building a smarter city through sustainability.

Portfolio Manager Tracks Energy Savings

Mayor Barrett created an Energy Reduction Team to reduce energy consumption in City facilities. During 2010, the Office of Environmental Sustainability (OES) aggregated historical energy data for all City buildings using the U.S. Environmental Protection Agency's Portfolio Manager (PM) software. This is the first time all such data has been centralized.

Major strides were made in 2010. For the first time, 174 City buildings are being tracked online in PM. For each building, the following data is collected and centralized in one location: Building name, address, square footage, number of occupants, operating hours, number of energy accounts, gas & electric meter numbers, along with the last six years of monthly billing information—approximately 325 inputs per building.

The inclusion of all this energy data under one “roof” will allow OES and City facility managers to:

- Review historical data for long-term energy trends at facilities;
- Easily access critical utility account information; and
- Rank facilities by energy use to incorporate a “star” building's

best energy practices across the Facility Managers group.

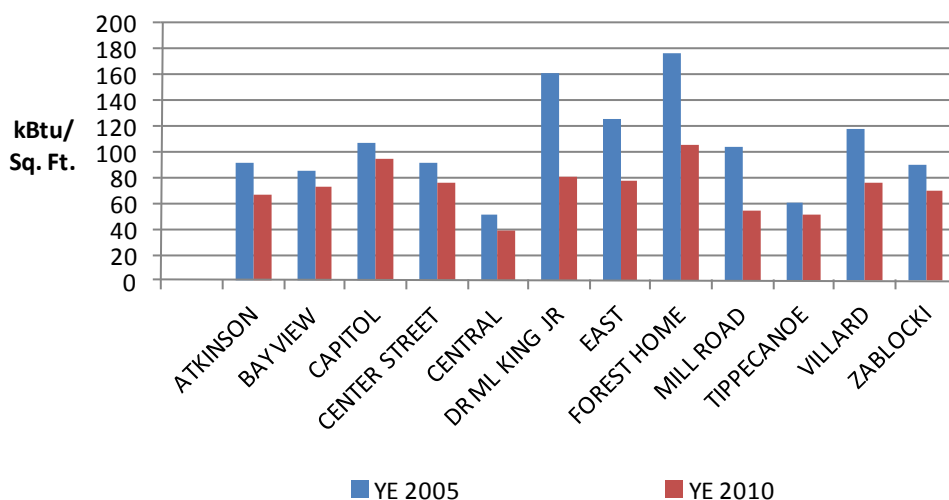
The table below is an example of an analysis that can be done using PM. The table shows energy intensity reduction from 2005-2010 for each City library (except Washington Park). These changes reflect a decrease in energy consumption as well as any changes in building hours.

The review and data input process has also uncovered utility meters with little to no usage. OES will be forwarding this information to facility managers for a review, with a possible closing of non-utilized accounts resulting in further savings on City utility bills.

An additional next step is integrating water use data as well as Milwaukee Water Works and Housing Authority facilities.

Portfolio Manager is helping the City track and improve facility energy performance, which translates into savings for tax payers and fewer emissions for the environment.

Energy Intensity at City Libraries, 2005 vs 2010



Recent Highlights

Green Team Report-Back:

Mayor Barrett and the Office of Environmental Sustainability hosted an event on November 3 to review the City's sustainability achievements since the 2005 Green Team Report. Of the 37 recommendations in the report, the City has implemented 84% of the recommendations. Achievements include:

- Mayor issued energy reduction goal for City facilities;
- Mayor created the Office of Environmental Sustainability; and
- City launched *Recycle for Good* campaign.

For a list of other successes, visit www.milwaukee.gov/sustainability. The Mayor formally thanked Green Team members for their contributions to Milwaukee's successes and issued certificates of appreciation. If you are a former Green Team member and did not pick-up your certificate, please contact OES. A new Green Team will be created to help develop the City's Sustainability Plan (see page 6).

Residential Me² Milestones:

The Me² residential energy efficiency program has several successes to celebrate in its first year. There have been more than 550 home energy assessments. Over 150 homes completed energy upgrades, and another 115 are in the pipeline. See page 5 for more information.

Milwaukee Receives Solar Grant:

The City of Milwaukee was awarded a solar grant from the U.S. Department of Energy to help develop strategies to bring down the cost of solar installations. The \$130,000 grant will help Milwaukee streamline the solar install process. See page 5 for details.

Wind Turbine Groundbreaking:

On November 3, Mayor Barrett broke ground on the City's new wind turbine. The turbine, a Northwind 100, is located at the Port Administration building. Follow the install progress at www.milwaukee.gov/sustainability.

Sustainable Economic Development

ME3 to Expand in 2012

The Milwaukee Economy, Energy and Environment (ME3) program is a *no-cost* program to help small and medium sized manufacturers cut costs, while at the same time helping to minimize negative environmental impacts of their manufacturing processes and practices.

ME3 is now accepting applications.



ECONOMY
ENERGY
ENVIRONMENT

The ME3 Team is currently working with nine manufacturers to provide process evaluations that will lead to increased resource efficiency, less pollution, and an improved bottom-line. All nine firms have received a no-cost process diagnostic from local industry experts that looks at how these firms use energy, water, materials, logistics and human capital to improve environmental and financial performance.

Projects that will result in quick simple paybacks include a heat recovery project, work flow optimization for a materials recycler, and development of more energy efficient machinery for an auto parts remanufacturer.



Energy intensive manufacturing benefits from ME3 assessments

In addition, the ME3 Team will begin discussion shortly with current ME3 firms about their particular needs regarding worker skills.

Due to the generosity of the City's 13 partners, ME3 is now accepting up to 11 additional manufacturers into the program. Application deadline is March 31, 2012. Participation in the program is contingent on manufacturers engaging the ME3 Team on workforce discussions as well as a commitment to continuous improvement in their operations.

To apply and for more info:
www.milwaukee.gov/ME3

Research Begins into By-Product Synergy Concept

The Mayor, Office of Environmental Sustainability and M7 are currently exploring the feasibility of a regional by-product synergy (BPS) program. By-product synergy is the matching of under-valued waste, transportation, energy and other streams from one facility with potential users at another facility. This creates new revenues, savings, and environmental benefits which improves competitiveness. A BPS program could provide great economic and environmental benefits to the region and its manufacturers. Check the OES website for updates as they become available.

Commercial Me² (Continued from Page 1)

Commercial Me² has eighteen participating contractors to help you develop and complete your energy efficiency project. These contractors are committed to putting City workers to work as part of this American Recovery and Reinvestment Act funded program.

To get started, and to hear about all financing options, complete and submit a Commercial Interest form at www.smartenergypays.com or call 877-399-1203 today!

Milwaukee to Create Infrastructure for Electric Vehicles

The Office of Environmental Sustainability (OES) is paving the way for electric vehicles in Milwaukee by installing four to five public charging stations in strategic locations throughout the City.

Electric vehicles, if widely adopted, have the potential to reduce our dependence on foreign oil and improve neighborhood air quality.

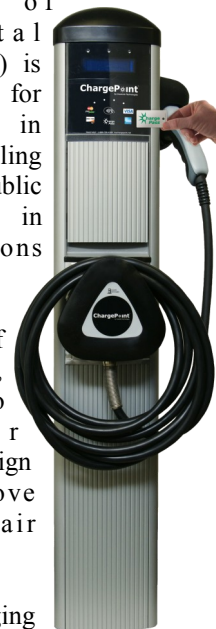
With public charging infrastructure, prospective owners of electric vehicles will have added confidence that they can commute and run errands around town without worrying about running out of power away from home.

The Compass Properties parking structure, on corner of Water and Mason Streets, and Discovery World will install the first public charging stations funded by OES. The stations are expected to be installed in early 2012.

The locations will use ChargePoint stations by Coulomb, which will become part of the national ChargePoint Network, that allows drivers to find and reserve charging stations.

OES is also evaluating other possible locations near the airport, east side, and west side.

OES is also participating in broader strategic planning efforts for electric vehicles with regional stakeholders.



Residential Me²



Energy Efficiency Financing for Homes

Thousands of Milwaukee's older homes have air gaps and little to no insulation in the walls, creating uncomfortable drafts and wasting energy. Milwaukee Energy Efficiency, Me², can help homeowners make cost-saving improvements customized to each individual home, such as insulation, air sealing, and new heating and cooling systems. Our experts will help you solve energy-related issues that will in turn save you money on utility bills and increase the comfort and durability of your home.

Residential Me² makes energy-saving home improvements easy and affordable by providing rebates, affordable financing, and step-by-step assistance. As always, eligible homeowners can take advantage of a home energy assessment, Cash-Back Rewards from Focus on Energy, a subsidized home energy assessment, and up to \$1000 toward qualifying health and safety upgrades like upgraded electrical wiring.

Plus, Me² provides FREE Energy Advocates to provide step-by-step assistance. Energy Advocates will



Me² Energy Advocate helps a Milwaukee homeowner discover energy savings.

answer all of your questions and help you maximize the financial resources that are available to you.

More Rebates in 2012!

Me² is upping the ante with additional incentives for Milwaukee homeowners!

2011 saw a successful launch of the Me² program, but the goal is to reach even more homeowners in 2012.

To increase energy savings, the following incentives are available:

- Homeowners who achieve 15% energy savings will be eligible for a \$1,000 bonus incentive;
- Homeowners who achieve 25% energy savings can get \$1,500 back; and
- Homeowners who achieve 35% or more in energy savings can get \$2,000 back!



Me² contractor provides new insulation in a Milwaukee home.

Add it all up, and Me² is the smart choice to improve a home's energy performance and the environment.

Affordable Financing

With Me², you can pay for home energy improvements as you save on your energy bills, with an affordable financing plan through Summit Credit Union.

Me² and Summit Credit Union have teamed up to provide low interest, no money down, no home equity financing to qualified homeowners. Apply online to be pre-approved: it's quick and easy. For more information visit: summitcreditunion.com/SummitMe2.

Get Started Today!

Me² offers eligible City of Milwaukee homeowners an enormous opportunity to improve the efficiency and comfort of your home with unprecedented financial incentives.

Join the hundreds of other Milwaukee homeowners who are improving their homes with Me². Visit smartenergypays.com or call 877-399-1203 today for eligibility requirements and to get started!



How Does Me² Work?

Sample Project: Example costs and savings in a home that achieves 25% energy savings.

\$100	Energy Audit (normally \$400)
\$5,500	Energy upgrades (insulation, new heating unit, air sealing, etc)
-\$1,200	Focus on Energy Cash-Back Rewards*
-\$2,500	Me ² Bonus Cash
-\$100	Energy Audit reimbursed when project is completed

\$1,800 Final Project Cost After Incentives

With Me² Financing, you can pay just \$23.25 per month - while saving over \$37 a month on more your energy bill!

**incentives vary by project*

Milwaukee Shines



Milwaukee SHINES

FOR A SUSTAINABLE SOLAR FUTURE

Milwaukee Shines, the City of Milwaukee's solar program, works to increase interest and investment in solar energy. As a Solar America City, Milwaukee is helping to increase the use of clean, renewable energy on city facilities and for home and business owners throughout the community.

Milwaukee Receives New Solar Grant

The City of Milwaukee was awarded another solar grant from the U.S. Department of Energy (DOE) to help bring down the cost of solar installs. Awarded December 2011, the grant will help Milwaukee eliminate obstacles in the solar install process.

Milwaukee received \$130,000 to help streamline the permitting process, so putting solar panels on a roof can be easier to manage for customers, installers and city staff. When complete, these model processes will be shared with other municipalities in Wisconsin as solar "best practices."

Milwaukee is part of a Wisconsin group of cities and nonprofit organizations awarded \$467,188 to develop ways to make installs easier, with the goal of bringing down the



cost of solar for homeowners and businesses. The Wisconsin team is led by the Midwest Renewable Energy Association, and includes the cities of Milwaukee, Madison and Marshfield. The Wisconsin team is one of 12 awards given in the US. The program is part of the DOE SunShot Initiative, that aims to bring down the cost of solar so that it's competitive with other forms of energy, without subsidies, by the end of the decade.



Solar Hot Water Added to Engine House #4

More Solar Added to City Facilities

Two more City Fire Department engine houses are getting their hot water from the sun. Engine houses 4 and 5 have installed solar hot water systems, which will help pre-heat the hot water used by the fire fighters.

A total of six engine houses now have solar hot water systems, which cuts down on natural gas use and decreases the City's energy bills.

The solar installations were made possible through the City of Milwaukee's Energy Challenge Fund, a U.S. Department of Energy Solar America Cities grant, and from the generous donation of solar panels and product from Caleffi Solar, located in Milwaukee's Menomonee Valley.

SOLAR THERMAL '11 Shines Light on Milwaukee's Solar Industry

In December, Milwaukee hosted the SOLAR THERMAL '11 conference, which brought in hundreds of solar thermal industry leaders to discuss technical advances and strategies for expanding the market. The Milwaukee Metro Solar Hot Water Business Council (SHWBC), an off-shoot of *Milwaukee Shines*, sponsored the conference which attracted companies from around the globe and the region. The Midwest Renewable Energy Association, organizers of the conference, have announced that SOLAR THERMAL '12 will be back in Milwaukee, December 5-7, 2012.

For Milwaukee area manufacturers, the SHWBC offers an opportunity to tap into a booming market. For details visit www.shwbc.org.



milwaukee metro
SOLAR HOT WATER
BUSINESS COUNCIL



*Solar Hot Water Install at
MSOE's Margaret Looch Residence Hall.
Funded in part by Milwaukee Shines*

Milwaukee Shines Solar Financing

The City of Milwaukee is happy to partner with Summit Credit Union to offer low-interest loans to help Milwaukee homeowners add solar to your homes. We offer an affordable way to finance the balance of your solar energy system costs.

Early-Bird Solar Incentive! First 20 participants get \$1,000 off the cost of your solar system.

www.MilwaukeeShines.com 414-286-5593

Looking Ahead: The Next 6 Months

City of Milwaukee Sustainability Plan

On November 3, 2011, Mayor Barrett announced his commitment to strategic action on environmental sustainability by asking OES to start working with the community to gather the broad outlines of a Sustainability Plan. The Plan will be tied to action in the community, but also City budgets and planning.

“Just as manufacturing is in our city’s DNA, sustainability will become ingrained in our DNA,” said Mayor Barrett, “we can build an even smarter city through sustainability.”

The City and its partners embraced this idea with the IBM Smarter Cities Challenge where Milwaukee was recognized as one of 24 cities worldwide for its proposal “Smarter Cities Feed Themselves.”

Like any good manufacturing process, or quality building being constructed, Milwaukee needs to spend an appropriate amount of time on design and planning by embedding sustainability into the region’s economic development process. What is the road-map to building a smarter city through sustainability?

The Mayor and OES believe it is a community endorsed Sustainability Plan that takes a comprehensive view of development and its impact on our neighborhoods, rivers, small businesses and boulevards. The Sustainability Plan will offer a strategic, City-community endorsed vision for Milwaukee’s sustainability and outline common goals and quantifiable targets to help reach that vision.

The Mayor also asked the OES Director Matt Howard to start working to build a new “Green Team” of City and community members to inform the Sustainability Planning process and act as a liaison between the community and City during the process. OES will be making a formal announcement on the start of planning and Green Team process in January or February.

Milwaukee Wind Turbine Install Moves Forward

Milwaukee will soon have a wind turbine providing clean, renewable power for the Port of Milwaukee. The 100 KW Northern Power wind turbine will generate all the power the Port Administration building needs.

The project was funded through a federal grant from the Department of Energy, as

well as grants from We Energies and Focus on Energy. The wind project, in addition to being a sound economic investment, provides a smart, viable demonstration of the City’s commitment to renewable energy.

The turbine’s foundation has been installed, and site work is complete. The turbine installation is expected to be completed and operational by early 2012. Follow the progress and see photos at our website or on our Facebook page.



Wind turbine groundbreaking - Nov 3, 2011.

Pictured (L-R): Kristine Martinsek, Harbor Commissioner; Eric Reinelt, Port Director; Mayor Tom Barrett; Matt Howard, OES Director; Maureen Faller, Kettle View Renewable Energy; Tim Hoelter, Harbor Commission Chair.

Photo courtesy of DCD, Pat A. Robinson

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Call 414-286-8317 or send an email to sustainability@milwaukee.gov

